

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference LW8068PC	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/KR 03/01084	International filing date (day/month/year) 3 June 2003 (03.06.2003)	(Earliest) Priority Date (day/month/year) 20 August 2002 (20.08.2002)
Applicant SAMSUNG ELECTRONICS CO., LTD.		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 5 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing:

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

2. ☐ Certain claims were found unsearchable (See Box I).

3. ☐ Unity of invention is lacking (See Box II).

4. With regard to the title,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the abstract,

☐ the text is approved as submitted by the applicant.

☒ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is Figure No.: 2

☒ as suggested by the applicant.

☐ None of the figures.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

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International application No.
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Box III TEXT OF THE ABSTRACT (Continuation of item 5 of the first sheet)

A liquid crystal display apparatus (100) comprising a liquid crystal display panel (200) and a touch panel (300) is disclosed. A first transparent electrode (350) is disposed on an upper surface of the liquid crystal display panel (200) for displaying an image. A second transparent electrode (360) is disposed on a lower surface of a retardation member (320) and the second transparent electrode (360) is opposite to the first transparent electrode (350). Accordingly, the entire thickness of the liquid crystal display apparatus may be decreased, and the manufacturing cost of the liquid crystal display apparatus may be reduced.

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CLASSIFICATION OF SUBJECT MATTER

IPC⁷: G02F 1/133, 1/1335, G06F 3/033

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC⁷: G02F, G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

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C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y A	EP 1020755 A1 (KANEKA CORP.) 19 July 2000 (19.07.00) <i>col. 6, line 7 - col. 8, line 31; col. 10, line 36 - col. 11, line 3; col. 13, line 19 - col. 14, line 9; col. 14, line 54 - col. 15, line 19; fig.2-6.</i>	1,6 5,8 2,4,11- 13,17,18
X A	EP 1103885 A1 (KANEKA CORP.) 30 May 2001 (30.05.01) <i>page 5, line 6 - page 6, line 4; page 6, line 31 - page 7, line 13; fig. 1-6.</i>	1,6 3,4,8,13,15,18
X Y A	US 5852487 A (FUJIMORI et al.) 22 December 1998 (22.12.98) <i>col. 4, line 64 - col. 5, line 50; col. 10, line 63 - col. 12, line 60; col. 14, line 63 - col.16, line 28; col. 17, line 22 - col. 18, line 64.</i>	18,19 5,8 1,4,9,11-13,16

☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents:

„A“ document defining the general state of the art which is not considered to be of particular relevance

„E“ earlier application or patent but published on or after the international filing date

„L“ document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

„O“ document referring to an oral disclosure, use, exhibition or other means

„P“ document published prior to the international filing date but later than the priority date claimed

„T“ later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

„X“ document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

„Y“ document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

„&“ document member of the same patent family

Date of the actual completion of the international search

3 October 2003 (03.10.2003)

Date of mailing of the international search report

5 November 2003 (05.11.2003)

Name and mailing address of the ISA/AT

Austrian Patent Office

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>WO 00/70550 A1 (NISSHA PRINTING) 23 November 2000 (23.11.00) <i>page 7, line 8 - page 15, line 25; fig. 1-4.</i></p> <p>-----</p>	<p>1-4,6,8,10- 15,17,18</p>

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

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Patent document cited in search report			Publication date	Patent family member(s)			Publication date
EP	A	1020755	2000-07-19	US	B	6611299	2003-08-26
				JP	A	2000206531	2000-07-28
				WO	A	0008520	2000-02-17
				JP	A	2000111896	2000-04-21
EP	A	1103885	2001-05-30	US	B	6411344	2002-06-25
				US	A	2001008433	2001-07-19
				JP	A	2000112663	2000-04-21
				WO	A	9966391	1999-12-23
US	A	5852487	1998-12-22	JP	A	9203890	1997-08-05
WO	A	070550		none			